

Baker (W. N.)

A LECTURE

INTRODUCTORY TO A COURSE

ON

ANATOMY, PHYSIOLOGY, &c.

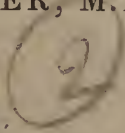
DELIVERED BEFORE HIS CLASS,

NOVEMBER 21st, 1834.

BY



WILLIAM N. BAKER, M.D.



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1834.

AT a meeting of the Anatomical Class of Dr. WILLIAM N. BAKER, held at his Rooms, November 22nd, 1834, Mr. Charles Minor in the Chair, and Mr. Otho Kean, Secretary.

A Committee of five, consisting of Messrs. Wm. G. Edwards, R. Pearce, James C. Guy, J. Hanson Thomas, and P. H. Gilmer, were appointed to wait upon Dr. Baker, and request a copy of his able and talented discourse of the preceding evening, for publication.

DEAR SIR:

November 24th, 1834.

In obedience to the wishes of your Class, as manifested at a meeting held November 22, 1834, and the individual sentiments of this Committee, highly appreciating the chaste and elegant composition of your Introductory, we respectfully solicit of its author a copy of the same for publication, at the same time tendering to him their warmest wishes for his personal welfare, and professional success; and fondly anticipating in him, that ornament to the profession which his early promise seems to insure.

WM. G. EDWARDS,	}	<i>Committee.</i>
ROSS PEARCE,		
JAMES C. GUY,		
J. HANSON THOMAS,		
P. H. GILMER,		

To Doctor William N. Baker.

GENTLEMEN:

November 24th, 1834.

I received this afternoon, your letter conveying the approbation of the Class, on my Introductory Lecture, and requesting a copy for publication.

I will not attempt to conceal the deep feeling of gratification, produced in my bosom, by the expression of such a sentiment on the part of the Class, and my only fear is, that in placing the Lecture at their disposal, I shall rob it of their good opinion. I beg you to return to the Class my heartfelt acknowledgements for the generous kindness with which they received this hasty performance; and to assure them that my highest aim will be to merit their approval. Accept for yourselves my thanks, for the flattering manner in which you have communicated the wishes of the Class, and the pledge of my enduring friendship.

Very respectfully, yours,

WM. N. BAKER.

TO MESSRS. WM. G. EDWARDS,

ROSS PEARCE,

JAMES C. GUY,

J. HANSON THOMAS,

P. H. GILMER.

INTRODUCTORY LECTURE.

GENTLEMEN:

THE spectacle of an assembled medical class, awakens feelings in my bosom, of no ordinary character. Having bid adieu to the glowing fire-side of domestic enjoyment, and having left far behind you those blue hills, endeared by the cherished associations of early years, you are gathered within the honored walls of the ancient temple of science and learning, which stands hard-by, one of the proudest monuments of our monumental city.

The student has made his pilgrimage, not to offer his devotion, as some common worshipper at the shrine of medical science; but to become a priest at her altar—a priest upon whose ministration depends the weighty responsibility of the happiness, the health, and the lives of his countrymen. When the short period of his noviciate

shall have reached its successful termination—when the laurel crown of merited honors shall have been pressed on his brow by the hoary-headed father, who lives to spread the brilliant mantle of a Rush, over the present age of inductive science, he will enter the field of practical labor, to carry the healing balm of Gilead to the afflicted—to inspire confidence amidst the raging pestilence, the rock of hope in the tempest of desolation and death.

He goes forth armed, not merely with the weapons to combat the ills which flesh is heir to, but with a mind rich in cultivation, and a heart elevated in its feelings and generous in its sympathies, to command the respect and win the affections of the people. Before him, the ignorant pretender quails, and the miserable quack, who would trifle with the springs of life, as though its fountains would flow at his bidding—shrinks into a thing contemptible and insignificant.

The contemplation of the most elaborated and interesting of the works of nature, constitutes his pursuit.

The geologist may penetrate the shell of our earth, examine the various strata, which plunge

into the ocean's depths, or piled Pelion on Ossa reach the clouds. He may conjecture their deposition from aqueous solution, or their chrystallization from igneous fusion—his study is grand, but the scene is desolate; there is no animation there.

The botanist may traverse his fields of flowers. He may dissect the blossom and examine its pistil and its stamina, and ascertain its mode of reproduction. He may gather

“The violet blue, that on the moss-bank grows.”*

And

“Roses white and redde.”†

And the

“Jasmine with its breath divine,

The woodbine with its rich perfume,

Nor spare the sweet leafed eglantine.”‡

The beauteous bouquet breathes its perishing sweetness to the morning dew-drop, but the evening vesper murmurs a requiem over its departed glories. The entomologist and zoologist may contemplate, with sentiments of profound delight, the habitudes of each genus and species

* Collins.

† Chaucer.

‡ Smith.

from the mammalia to the zoophyte. He may assemble the animal kingdom, and admire the curious and beautiful means which adapt them to the habits and elements to which their propensities incline them. The eye he studies yields no ray of intellect, the heart returns no vibration to the touch of sympathetic feeling.

It is reserved for you to cultivate a science which, whether viewing a lifeless compound of organic atoms or the wonderful physiological problem of living—vital organization, which, whether contemplating the still more singular interruption of healthy action and substitution of morbid laws—with its causation and those curious remedial antagonists, by means of which, health is reproduced, presents far above all others, subjects of absorbing interest.

The physiological inquirer, commences his investigation of man at the nascent point of his existence. From the little ovum, when first it is excited to burst its prison-house in the ovarium, to the flocculent embryo attached by its peduncle to the walls of its nidus, and enclosed in its beautifully transparent membranes, through the successive stages of its developement, till, as-

cending to the order of a marine animal, it is about to quit the Oceans of the Amnion and Chorion for terra-firma. From its introduction into the world as a helpless infant, without intelligence, the tender object of parental solicitude, so fragile that one rude breath would extinguish its existence, through the expansion of its powers, the growth of life's spring-time, to the maturity of mind and body, under the middle summer's sun, down to the trembling gait and withered form; the childish smile, under the snow-white locks of the time-worn, wintry doting old man, just crumbling like some ivy grown tower into ruins, with one stone left to mark the place of its fall.

To investigate the links in this most wonderful series, to trace ourselves from an origin apparently so contemptible, from the mere punctum saliens to the full grown man, exercising faculties of so high an order, and living by machinery so complicated and so curious, is the purpose of physiology. Physiology or the science of life, would naturally early engage the attention of man. A query as to the mode of his existence would present itself to the rudest savage. But

the mode of answering would of course be as fanciful as the means on which to found an opinion would be scant and insufficient. The earliest philosophy invariably ascribes every phenomena in nature to supernatural influence,—the ebbing and flooding tide to the influence of a river god; the rustling of the forest and the dark gloom of its deeply shaded recesses, to the chanting choir of sylvan goddesses, or the sanctum sanctorum of the Fauns and Satyrs. Each fountain bubbled its praises to some nymph. Every breath of Heaven acknowledged some deity.

The vital principle, or anima, or *εμφυτον πυρ*, or vital heat of Hippocrates, seems to have had a similar origin. This great man whose observation was so acute and so extended, whose powers of generalization were so wonderful, seems to have been tinctured by this natural disposition of early ages to ascribe every thing that is at all mysterious, to some immaterial, invisible principle. Accordingly, we find him locating this *εμφυτον πυρ* in the left ventricle of the heart, and asserting that the left ventricle threw this letheria principle of life and heat into the arte-

ries, and through them into every part of the system. Singular to relate, this dogma was undisputed until the age of Galen, and Galen himself, for a long time, believed in its truth. We find him upon opening an artery after death, and discovering it to contain blood, accounting for so singular a fact in this manner. The arteries and veins must connect together at their extremities, and immediately after death, the invisible principle which filled the arteries has fled—a vacuum is then produced in those tubes, and the blood rushes from the veins to fill it up. Some time afterwards, upon opening a live dog, he discovered the blood circulating in the arteries, and not till then was the delusion of the *εμψυκον πυρ* dissipated. It is curious to observe how near he and many others were to the discovery of the circulation of the blood. We can hardly imagine how they could avoid stumbling upon it. But Galen did not perceive it; and though he discovered the fact that blood flowed in the arteries, he imagined its movement was occillatory—backwards and forwards from the heart to the small arteries. We might linger with pleasure among these Druidical monuments of physiology, or

trace it to the venerated pile of Gothic architecture, which remains from the middle ages; but we would rather invite you to walk with us, amidst the finished columns of the magnificent temples, erected by such masters as Majendie, Blumenbach, Gmelin and Tiedemann, or the great Charles Bell.

The early period of anatomy was as obscure and unsatisfactory as that of physiology. The languages of the ancients discover a knowledge of the principal bones and processes, and of the principal viscera. They saw the bones bleaching on the battle-field, and beheld many a disembowelled warrior. They saw the viscera of the victims they sacrificed, but their knowledge was as might be presumed, superficial and scant. Anatomy as a science, was first cultivated by the Greeks.* Homer says, that the stone which Diomedes threw at Æneas, not only broke the bone of the thigh, but tore the ligaments of the acetabulum.† Ulysses determined to strike the Cyclops, where the liver adheres to the diaphragm, and Merion was wounded in one of the large veins which return the blood to the heart.

* Homer Il. lib. v.

† Odyss. lib. ix.

Practical anatomy seems to have been first pursued in the school of Pythagoras. But the state of its proficiency at the time of Hippocrates will be apparent from an anecdote related of him by an able historian of the times. Hippocrates was sent to visit Democritus, of Abdera, in his retirement, who was suspected of derangement, by his countrymen. "He found the philosopher seated on a stone, under the ample shade of a plane tree, with a number of books arranged on each side, and one on his knee, a pencil in his hand, and several animals which he had been dissecting before him. His complexion was pale, and his countenance thoughtful; at times he laughed, at times shook his head, mused for a while, and then wrote; then rose up and walked, inspected the animals, sat down and wrote again. The subject which thus deeply occupied his attention was madness; and the object of his dissection was to discover the nature and seat of bile which he supposed to be the cause of the distemper. Hippocrates observed him for some time in silent admiration; acknowledged the great importance of his inquiries, and regretted that his own professional employments and do-

mestic cares left him no leisure for such pursuits." The day has long since passed, when bile was supposed to be the great and sole cause of madness.

The function of the muscles was known to Herophilus the Greek. Lycus of Macedon wrote a treatise on Myology. Vesalius discovered the passage of the blood from the right side of the heart through the lungs. Fabricius ab Aqua pendente discovered the valves in the veins, which he called ostiola or little doors. The way was now cleared for Harvey, an Englishman, who, having spent much time in Italy, and availed himself of the discoveries of the anatomists of that age, was enabled to demonstrate the circulation of the blood. This discovery is a monument of the powers of inductive reasoning, and renders memorable the year 1628. Asellius, about this time, discovered the lymphatics. Bartholine, Dr. Monroe and Hewson demonstrated them in various animals, and Mascagni traced them in every part of the human system. Thus by successive steps anatomy came down to our time. Medicine up to this date, was but licensed empiricism. Its practice was based on experience

ever fallacious, ever illusive. Its doctrines were clouded by superstition. Credulity, scepticism, false theories, and absurd conceits alternately disgrace the pages of its history. In the language of the accomplished scholar and able physician, Dr. Paris—"It has been justly observed that there is a certain maturity of the human mind acquired from generation to generation in the man, as there is in different stages of life in the individual man. What is history when philosophically studied but the faithful record of this progress? pointing out for instruction, the various causes which have retarded or accelerated its progress in different ages and countries." The brief and rapid sketch we have taken, illustrates the remarks of Dr. Paris.

We shall see that every thing sound in theory or useful in practice, is based on pathological anatomy; which dates its origin from a period but little beyond the memory of the present generation. General anatomy or the anatomy of the tissues of the body, was the basis on which pathological anatomy was predicated. In 1757, Haller published his great work in which he endeavors to demonstrate an elementary fibre. He believed, how-

ever, in but one elementary fibre; of course his labors were productive of no result favorable to anatomy. The labors of the two Hunters, and of Cullen and others, formed the foundation of general anatomy. Andrew Bonn, of Amsterdam, in 1763, seems fully to have embraced this then new science. He demonstrated the dermoid tissue, the cellular tissue and the mucous tissue. He shews that the dura mater and pia mater accompanied the nerves, and, in fact, almost entirely preoccupied the ground on which Bichat has gained imperishable laurels. General anatomy at once led to pathological anatomy. In the cogent and forcible language of the editor of the *Medico-Chirurgical Review*,—"It is but a few short years since this department was a desert; it is now the fairest province in the land of science. Could the venerable fathers of our art rise for one short hour from their graves, and observe the dissector and the draughtsman busy at their avocations—see their ancient systems and their toilsome observations overthrown by labors, which their infancy in philosophy and their natural prejudices, consigned to the earthworm and the mole; view the morbid anatomist

deriding their dogmas and pitying their credulity, those primitive sages would hurry to the land of spirits, and quit without reluctance a new world,—too wise or too insane to have aught of community with them. Could they who drew the bow and fixed the arrow see where it has sped, they would probably own that they had been but blind and short-sighted instruments, in the hands of that Power which guides the destiny and determines the progress of the human race. Bichat, Baillie, and the Hunters commenced the investigation of the anatomy of disease. Their era is scarcely passed away, yet the study on which they entered has already revolutionized the practice and the theory of medicine.”

Gentlemen,—The course we are about to commence will be somewhat novel, at least in this city. I could not expect to enlist your attention were I to attempt to follow over the same ground previously occupied by the distinguished and able professor of anatomy in the University of Maryland. The course I shall pursue will be to take up anatomy topographically—following somewhat the plan of Velpeau, in the division of the body into regions. This division will

have special reference to the surgical anatomy of the parts; for example, suppose we were to take up the brachial region. First, we would describe the bone, the *os humeri*; then the skin, cellular tissue; then the muscles, blood vessels, and nerves. The subject would thus be brought into such proper and close connexion as would impress it on the mind, in that relation in which you are to meet with these parts in your practical career; and I flatter myself you will find it improving in fixing the surgery of each region directly upon its anatomy.

In conclusion,—I cannot in this introductory lecture, pass in silence the talents and acquirements of my friend, who commenced in these rooms a career, which, judging from the auspicious brilliancy of its present appearance, will illustrate the fame of the venerated University which crowned him her son, no less than benefit in its results, that other University, which with a discrimination worthy of its distinguished founder, lifted him from this humble hall, to one of the highest seats in her temple.

Gentlemen,—I throw myself with confidence on the young friends I see around me. I shall

find critics who have hearts as well as heads, who will rather cherish and sustain the enterprise of one young like themselves, than crush it by their opposition, or destroy it by their cold approval.

A CATALOGUE
OF THE
STUDENTS COMPOSING THE ANATOMICAL CLASS
OF
WILLIAM N. BAKER, M. D.

James J. Allnutt,	- - - -	<i>Maryland.</i>
George Alexander,	- - -	<i>Baltimore.</i>
Alexander H. Baer,	- - -	<i>Virginia.</i>
Samuel G. Baker,	- - -	<i>Baltimore.</i>
Gustavus Barber,	- - - -	<i>Maryland.</i>
Theodosius Bartow,	- - -	<i>Baltimore.</i>
Alexander H. Bayly,	- - -	<i>Maryland.</i>
Nathaniel Chesley,	- - -	<i>Do.</i>
James G. Coombe,	- - -	<i>District of Columbia.</i>
John Crawford,	- - - -	<i>Maryland.</i>
D. Camden De Leon,	- -	<i>South Carolina.</i>
William G. Edwards,	- -	<i>Baltimore.</i>
P. H. Gilmer,	- - - - -	<i>Virginia.</i>
Jno. F. Gray,	- - - -	<i>Maryland.</i>
James C. Guy,	- - - - -	<i>Virginia.</i>
Charles J. Gilleland,	- -	<i>Pennsylvania.</i>
Charles Hitchcock,	- - -	<i>Ohio.</i>
William Hungerford,	- -	<i>Baltimore.</i>

O. W. Kean,	- - - - -	<i>Virginia.</i>
John C. Jenifer,	- - - - -	<i>Maryland.</i>
James Levering,	- - - - -	<i>Baltimore.</i>
Washington Lyon,	- - - - -	<i>Maryland.</i>
A. Maddox,	- - - - -	<i>Do.</i>
John L. Maddox,	- - - - -	<i>District of Columbia.</i>
C. R. McClellan,	- - - - -	<i>Baltimore.</i>
Daniel McMeal,	- - - - -	<i>Maryland.</i>
Charles Minor,	- - - - -	<i>Virginia.</i>
Ross Pearce,	- - - - -	<i>Maryland.</i>
John R. Piper,	- - - - -	<i>Baltimore.</i>
William Power,	- - - - -	<i>Do.</i>
John F. Price,	- - - - -	<i>Maryland.</i>
Richard Pugh,	- - - - -	<i>Do.</i>
—— Raborg,	- - - - -	<i>Baltimore.</i>
Washington M. Stansbury,	- - - - -	<i>Do.</i>
H Ezekiah Starr,	- - - - -	<i>Do.</i>
Charles H. Steele,	- - - - -	<i>Maryland.</i>
William Sterling,	- - - - -	<i>Baltimore.</i>
Cornelius D. Tatman,	- - - - -	<i>Delaware.</i>
Thomas A. H. Thornton,	- - - - -	<i>Virginia.</i>
David Trimble,	- - - - -	<i>Baltimore.</i>
S. T. Knight,	- - - - -	<i>Maryland.</i>
J. Hanson Thomas,	- - - - -	<i>Virginia.</i>
William W. Watkins,	- - - - -	<i>Maryland.</i>
James B. Waugh,	- - - - -	<i>New York.</i>
John C. P. Wederstrandt,	- - - - -	<i>Louisiana.</i>
Benjamin W. Woods,	- - - - -	<i>Maryland.</i>